

**SYSTEMS AND METHODS FOR FABRICATING OPTICAL  
MICROSTRUCTURES USING A CYLINDRICAL PLATFORM AND A  
RASTERED RADIATION BEAM**

**Abstract of the Disclosure**

5           Optical microstructures, such as microlenses, are fabricated by rotating a  
cylindrical platform that includes a radiation sensitive layer thereon, about its axis,  
while simultaneously axially rastering a laser beam across at least a portion of the  
radiation sensitive layer. The cylindrical platform is also simultaneously translated  
axially while it is being rotated. The amplitude of the laser beam is continuously  
10 varied while rastering. The optical microstructures that are imaged in the radiation  
sensitive layer can be developed to provide a master for replicating a microlenses.